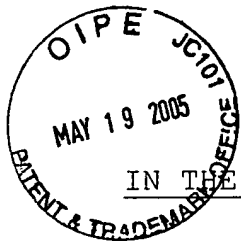


09/626,866

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Certificate

MAY 24 2005

In re application : Qingping Jiang, et al.
Patent No. : 6,783,948
Issued : August 31, 2004
For : CHEMILUMINESCENT ACRIDINIUM COMPOUNDS
AND ANALOGUES THEREOF AS SUBSTRATES OF
HYDROLYTIC ENZYMES
Attorney's Docket : CCDLT-300XX

of Correction

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: ATTN: Certificates of Correction Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 17, 2005.

By: Holliday C. Heine
Holliday C. Heine, Ph.D.
Registration No. 34,346
Attorney of Record

L E T T E R

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
ATTN: Certificates of Correction

Sir:

Enclosed are two completed copies of Form PTO 1050. It is requested that a Certificate of Correction be issued, pursuant to 37 C.F.R. § 1.323, to correct an inadvertent clerical mistake that arose, in good faith, during the prosecution of the above-identified patent.

05/20/2005 AMOHDAF1 00000009 6783948

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WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI, LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

Enclosed herewith is our check in the amount of \$100.00 as payment of the fee for the above-referenced correction. In the event any additional fee is required, please charge such amount to Patent and Trademark Office Deposit Account No. 23-0804. Triplicate copies of this letter are enclosed.

Respectfully submitted,

QINGPING JIANG, ET AL.

By: Holliday C. Heine
Holliday C. Heine, Ph.D.
Registration No. 34,346
Attorney of Record

WEINGARTEN, SCHURGIN,
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Enclosures

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

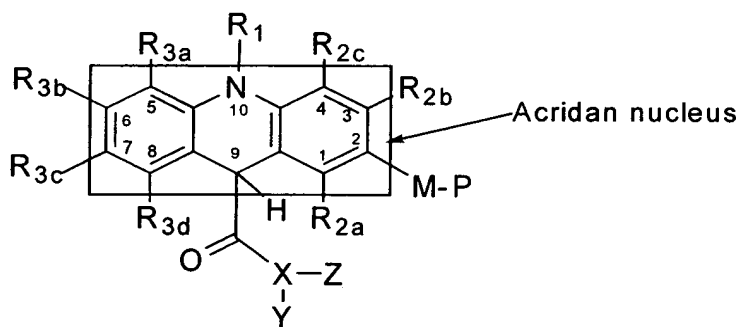
It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Front page, (57) Abstract, line 16, "it a" should read --is a--;

Column 3, line 13, "can are" should read --can be--;

Column 3, line 20, "Sasamoto at al" should read --Sasamoto et al--;

Column 15, lines 17-30, delete "Formula IV (including structure)" and insert the following Formula IV:



Formula IV

Column 15, line 34, "m group" should read --group--;

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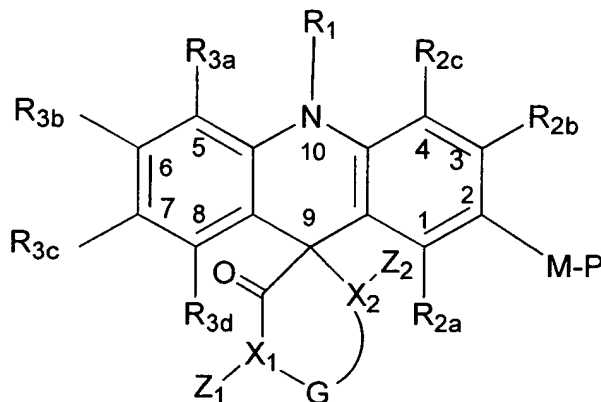


UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 15, lines 42-55, delete "Formula V (including structure)" and insert the following Formula V:



Formula V

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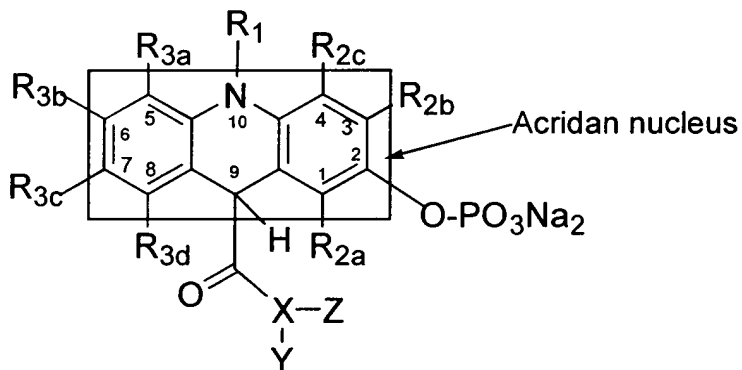


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PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 16, lines 54-65, delete "Formula VIII (including structure)" and insert the following Formula VIII:



Formula VIII

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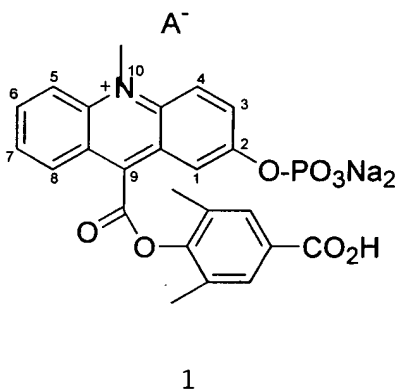


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CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
DATED : August 31, 2004
INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 17, lines 36-50, delete "1 (including structure)" and insert the following 1:



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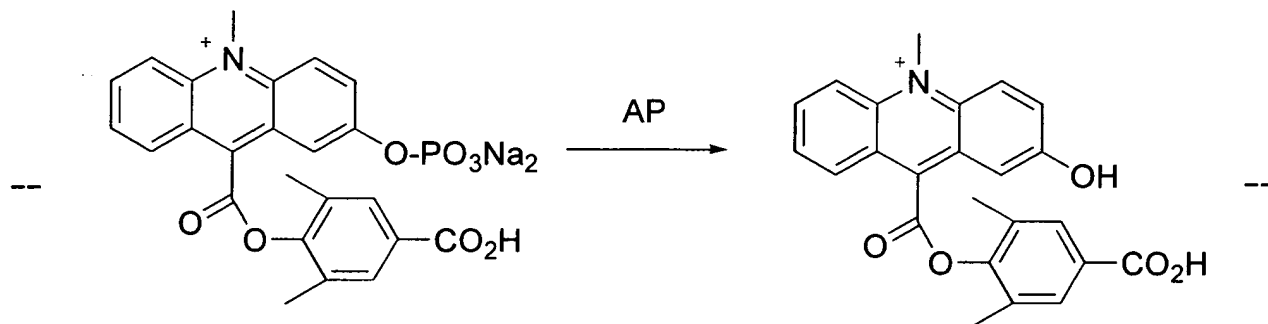
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CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
DATED : August 31, 2004
INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 18, lines 5-34, delete "Reaction B (including structures)" and insert the following Reaction B:

Reaction B

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PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 20, line 63, "enzyme is the" should read --enzyme in the--;
 Column 22, line 59, "fulfil this" should read --fulfill this--;
 Column 29, line 46, "[Krika, Clin." should read --[Kricka, Clin.--;
 Column 36, line 46, "TAF/acetonitrile" should read
 --TFA/acetonitrile--;
 Column 36, line 50, "(DALTI-TOF):" should read --(MALDI-TOF):--;
 Column 38, line 31, "TAF/" should read --TFA/--;
 Column 38, line 45, "(2-Phos-NSB-DNM, 7)" should read
 --(2-Phos-NSB-DMAE, 7)--;
 Column 42, line 60, "10 m)." should read --10 μ m).--;
 Column 45, line 61, insert the following prior to
 N-(4'-Benzyloxy)phenylisatin:

-- Example 10

Synthesis of 2-OH-Spiroacridan (12) and 2-Phos-Spiroacridan
 (11)

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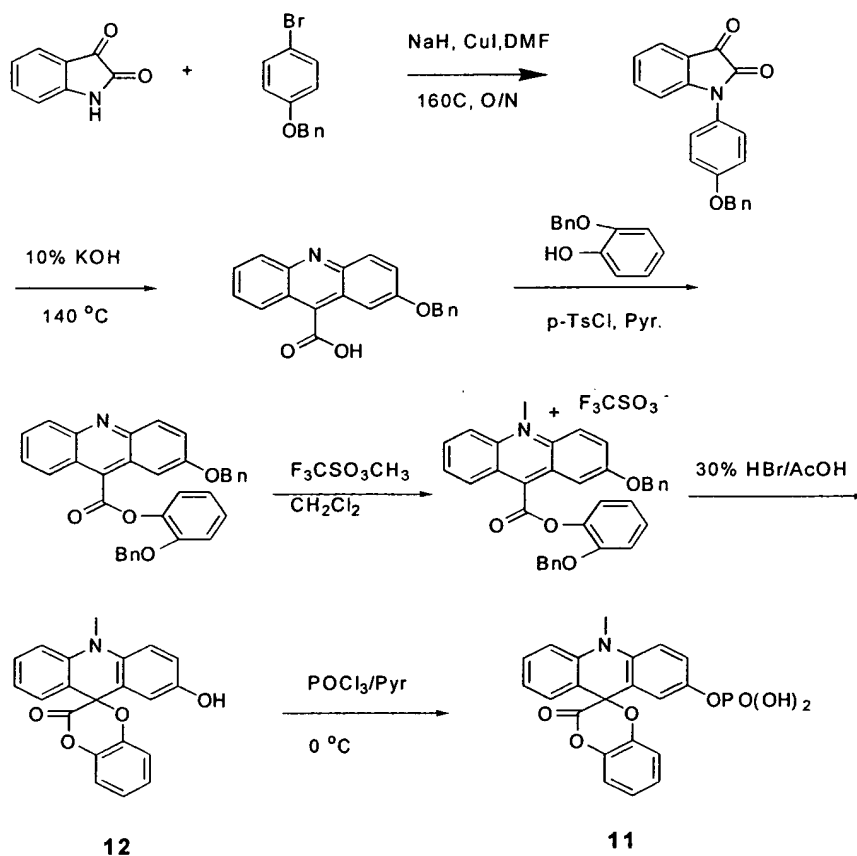
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PATENT NO : 6,783,948
DATED : August 31, 2004
INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 46, line 54, "10 μ n)." should read --10 μ m).--;

Column 46, line 61, "(M+~1)." should read --(M+1).--;

Columns 47-50, after the paragraph following Example 11, delete formulas 13 and 15 and insert the following formulas 13 and 15:

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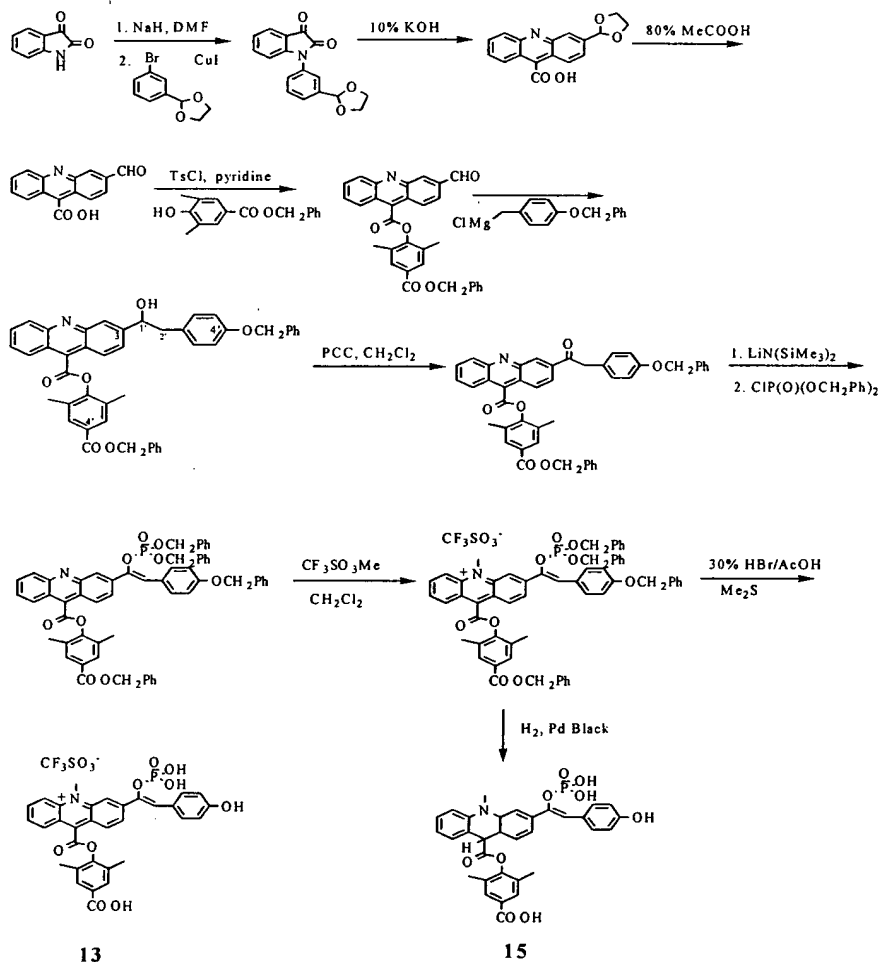


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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 51, line 53, "phosphite" should read --phosphate--;

Column 57, line 18, "2-Phos-DMM" should read --2-Phos-DMAE--;

Column 60, line 50, "TSH concentration. SH" should read
 --TSH concentration. TSH--;

Column 61, lines 44-62, delete "claim 3" and insert the following claim 3:

--3. The chemiluminescent substrate of claim 1, wherein
 P is PO₃B;
 X is O; Y is selected from the group consisting of phenyl,
 (2',6'-dimethyl-4'-benzyloxycarbonyl)phenyl and (2',6'-dimethyl-4'-
 -carboxyl)phenyl; and Z is omitted.--

Column 62, claim 8, line 48, "structures," should read
 --structure--;

Column 63, claim 11, line 53, "K2, Ca" should read --K₂, Ca--;

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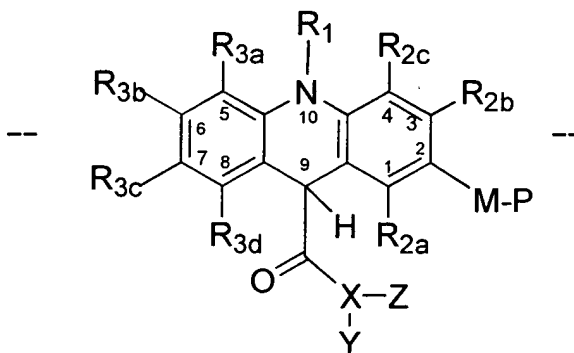
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 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 66, claim 17, lines 46-59, delete the structure and insert the following structure:



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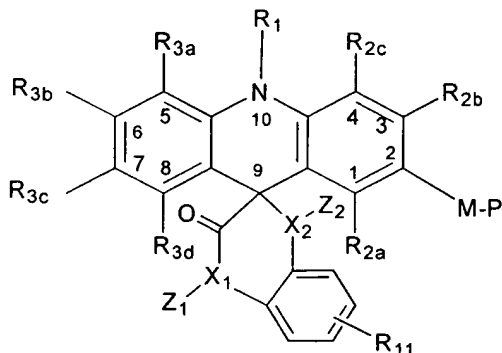
UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,783,948
 DATED : August 31, 2004
 INVENTOR(S) : Qingping Jiang, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 67-68, claim 18, delete "claim 18" and insert the following claim 18:

--18. A chemiluminescent substrate of a hydrolytic enzyme, said substrate having the structure



wherein

P is selected from the group consisting of PO_3H_2 , PO_3K_2 , $\text{PO}_3(\text{NH}_4)_2$, PO_3Ca , PO_3Mg , PO_3Na_2 , a sugar moiety and $\text{C}(=\text{O})\text{R}$ group wherein R is an alkyl group having 1 to 6 carbon atoms;

M is oxygen;

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It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

R_1 is selected from the group consisting of methyl, sulfopropyl, sulfobutyl, sulfoalkyl, and carboxymethyl;

R_{2a} , R_{2b} , R_{2c} , R_{3a} , R_{3b} , R_{3c} and R_{3d} , can be the same or different, selected from a group consisting of hydrogen, methyl, methoxy, halides, cyano (-CN);

A^- is a counter ion for the electroneutrality of the quaternary nitrogen of the acridinium compounds, said A^- not being present if said R_1 substituent contains a strongly ionizable group that can form an anion and pair with the quaternary ammonium cationic moiety; and

X_1 and X_2 are the same or different and are selected from the group consisting of O, N or S, such that,

when X_1 and X_2 are O or S, R_{11} is selected from the group consisting of hydrogen, -R, substituted or unsubstituted aryl, halides, nitro, sulfonate, sulfate, phosphonate, $-CO_2H$, $-C(O)OR$, cyano (-CN), -SCN, -OR, -SR, -SSR, $-C(O)R$, $-C(O)NHR$, ethylene glycol, or polyethyelene glycol, where R is as defined above; and

Z_1 and Z_2 are omitted; and

when at least one of X_1 and X_2 is N, Z_1 and Z_2 are toluenesulfonyl, and R_{11} is carboxypropyl.--

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